

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/767,831
ATTORNEY DOCKET NO. Q62329

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A filter ~~Filter~~ arrangement with a linear phase characteristic comprising:

[[a.]] a first filter (~~F1~~) having an amplitude characteristic that meets a predefined amplitude specification and having a phase characteristic that ~~generally~~ is a non-linear function of frequency; and

[[b.]] a second filter (~~F2~~), cascade coupled to said first filter (~~F1~~), said second filter (~~F2~~) having a phase characteristic that is substantially equal to the sum of that is, up to a linear function of frequency[[,]] ~~and the substantially opposite to said phase characteristic of said first filter (~~F1~~).~~

[01] ~~wherein CHARACTERISED IN THAT~~ said second filter (~~F2~~) is an anti-causal version of a fictive digital all-pass filter (~~APF~~) having a phase characteristic that is substantially equal to the sum of that is, up to a linear function of frequency[[,]] and substantially equal to said phase characteristic of said first filter (~~F1~~).

2. (Currently Amended) The filter ~~Filter~~ arrangement according to claim 1, ~~wherein~~
~~CHARACTERISED IN THAT~~ said first filter (~~F1~~) is an ~~analog~~ analog filter.

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3. (Currently Amended) ~~The filter~~ Filter arrangement according to claim 1, wherein
~~CHARACTERISED IN THAT~~ said first filter (F1) is a digital filter.

4. (Currently Amended) ~~A method~~ Method to develop a filter arrangement with a linear
phase characteristic, wherein the method comprises ~~comprising the steps of:~~

[[a.]] designing a first filter (F1) so that its amplitude characteristic meets a predefined
amplitude specification;

[[b.]] implementing said first filter (F1);

[[c.]] determining a phase characteristic of said first filter (F1), said phase characteristic
being a non-linear function of frequency;

[[d.]] implementing a second filter (F2) so that its phase characteristic is [[.]] is
substantially equal to the sum of up to a linear function of frequency [[.]] and the substantially
opposite to said phase characteristic of said first filter (F1); and

[[e.]] cascade coupling said first filter (F1) and said second filter, wherein (F2) to
thereby constitute said filter arrangement;

~~CHARACTERISED IN THAT~~ said step of implementing said second filter (F2)
comprises the substeps of:

[[d1.]] designing a fictive digital all-pass filter (APF) so that its phase characteristic
is [[.]] substantially equal to the sum of up to a linear function of frequency [[.]] and substantially
equal to said phase characteristic of said first filter (F1); and